AMENDMENTS TO THE CLAIMS:

The following listing of claims supersedes all prior versions and listings of claims in this application:

1. (Currently Amended) A method of tracking the <u>changing</u> size of a multicast audience<u>, said method</u> comprising:

(a) transmitting<u>,</u> to receivers receiving [[the]] <u>a</u> multicast<u>,</u> a plurality of requests<u>,</u> each <u>request</u> including a probability parameter (P), ~~whereby~~ each terminal ~~replies~~ <u>replying</u> or not with a corresponding probability;

(b) counting the number (r) of replies to each request;

(c) determining, from the counts and parameters, estimates of the number of receivers;

(d) filtering the estimates;

~~wherein the method further includes repeatedly~~ <u>(e)</u> computing a new probability parameter to be included in a subsequent step (a), by forecasting, from the counts and parameters, [[a]] <u>an</u> upper bound for the number of receivers and determining therefrom [[the]] <u>a</u> new probability parameter such that the risk that the number of replies exceeds a predefined threshold is kept below a predefined value<u>; and</u>

(f) repeating steps (a) – (e) to provide successive outputs representing estimates of the then current size of the multicast audience.

2. (Original) A method according to claim 1 in which the step of computing a new probability parameter comprises:

estimating the maximum audience size corresponding to a predetermined probability of receiving a number of replies equal to that observed, given the probability parameter used;

performing said forecasting using said estimated maximum audience size and at least one previous value of said maximum audience size;

determining the new probability parameter ($P(t_{i+1})$) that, with the forecast maximum size, would involve the risk of the number of replies exceeding the capacity available to receive them falling below a predetermined risk threshold.

3. (Original) A method according to claim 2 including generating a filtered version of the estimated maximum sizes, prior to said forecasting.

4. (Original) A method according to claim 3 in which the filtering of the estimated maximum sizes is performed by a Wiener filter.

5. (Previously Presented) A method according to claim 3 including adaptively adjusting the parameters of said filtering of the estimated maximum sizes in dependence on the power spectrum of the estimates.

6. (Previously Presented) A method according to claim 1 in which the forecasting is performed by extrapolating past values of the estimated maximum size.

7. (Previously Presented) A method according to claim 1 in which said filtering of the estimates is performed by a Wiener filter.

8. (Previously Presented) A method according to claim 1 including adaptively adjusting the parameters of said filtering of the estimates as a function of the power spectrum of past values of the estimates.

9. (Previously Presented) A method according to claim 1 in which said filtering of the estimates is performed after ceasing to determine said estimates.

10. (Previously Presented) A method according to claim 1 in which said filtering of the estimates is performed each time a new estimate is determined.

11. (Previously Presented) A method according to claim 5 in which said filtering of the estimates is performed each time a new estimate is determined; and

in which the same filter parameters are used for the filtering of the estimates and the filtering of the maximum estimated sizes.

12. (Previously Presented) A method according to claim 1 including measuring the probability of loss of requests or replies and applying a correction to the first estimated size.

13. (Currently Amended) A method of estimating the <u>changing</u> size of a multicast audience<u>, said method</u> comprising:

(a) transmitting, to receivers receiving [[the]] a multicast, a plurality of requests, each request including a probability parameter (P), ~~whereby~~ each terminal ~~replies~~ replying or not with a corresponding probability;

(b) counting the number (r) of replies to each request;

(c) determining from the count a new probability parameter to be included in a subsequent step (a); and

(d) repeating steps (a) – (c) to provide successive outputs representing estimates of the then current size of the multicast audience.

14. (Currently Amended) A method of estimating the changing size of a multicast audience, said method comprising:

(a) transmitting, to receivers receiving [[the]] a multicast, a plurality of requests, each request including a probability parameter (P), ~~whereby~~ each terminal ~~replies~~ replying or not with a corresponding probability;

(b) counting the number (r) of replies to each request;

(c) determining, from the counts and parameters, estimates of the number of receivers;

(d) filtering the estimates;

~~wherein the method further includes repeatedly~~ (e) computing a new probability parameter to be included in a subsequent step (a), by forecasting, from the counts and parameters, [[a]] an upper bound for the number of receivers and determining therefrom the new probability parameter; and

(f) repeating steps (a) – (e) to provide successive outputs representing estimates of the then current size of the multicast audience.

15. (Currently Amended) A method of estimating the changing size of a multicast audience, said method comprising:

(a) transmitting, to receivers receiving [[the]] a multicast, a plurality of requests, each request including a probability parameter (P), ~~whereby~~ each terminal ~~replies~~ replying or not with a corresponding probability;

(b) counting the number (r) of replies to each request;

(c) determining, from the counts and parameters, estimates of the number of receivers;

(d) filtering the estimates;

~~including~~ (e) adaptively adjusting the parameters of said filtering of the estimates as a function of the power spectrum of past values of the estimates; and

(f) repeating steps (a) – (e) to provide successive outputs representing estimates of
the then current size of the multicast audience.